ADVANCED FORECASTING & PROCUREMENT for MANUFACTURING

CERTIFIED FOR
Microsoft Dynamics™ NAV

AFP for Manufacturing

There was a time in the manufacturing industry when components and raw materials were available with short lead times. MRP systems were designed to manage capacity planning and reduce manufacturing costs. The quantity and timeframe of production were often decided based on a business forecast, without much analysis of historical demand for the products being manufactured.

Today, because many components and raw materials are imported, lead times are much longer and often much more uncertain. Customers expect immediate availability, leaving the manufacturer caught in the middle, and forced to over purchase components and over produce finished goods in order to meet customer demand. In today's economy, this is not an efficient use of cash or resources.

This traditional manufacturer business model is tough. It highlights the need for more timely information, as well as both dynamic and integrated planning, from the phase of sourcing components, through the manufacturing process and the deployment of the finished goods where they are needed in the supply chain.

AFP for Manufacturing brings needed relief to manufacturers.

Built Inside Microsoft® Dynamics NAV

AFP is built inside Dynamics NAV and takes a unique approach of incorporating vital forecasting functions inside a single system, providing "Total Access to Data" through NAV's native drill-down capabilities.

Forecast View

The 12-month forecast is presented with drill-down capabilities to allow the user to view the details of the forecast input, as well as the calculations used. In addition, the forecast is compared to the time-phased expected inventory and then utilized to predict the expected inventory level at any point in the future.

Integrated Planning & Execution for your Supply Chain

AFP drives a single process that is run on a daily basis for a user-defined timeframe, usually 6 or more months. Since time-phase expected inventory changes on a daily basis, the result is a constantly up-to-date production plan, providing AFP Procurement time phased information for scheduling component purchases.

AFP Production compares the Finished Goods Forecast to Time Phased Expected Inventory to determine the quantity and timeframe in which products should be produced. A set of user-defined increments are then used to create Simulated Production Orders to drive demand for component or intermediate production items.

Although this process can change the production plan on a daily basis, the user can lock in the plan in the near term to create a stable environment for capacity planning.

Best Fit Forecasting

AFP Forecasting uses a Best Fit Formula approach to ensure that the very best formula is automatically assigned to each item in each warehouse. The result is an extremely accurate 12- to 15-month forecast of your finished goods.

Forecast Input

Any forecasting tool is only as good as the accuracy of the historical data used to derive its forecast. AFP provides several ways to improve the accuracy of historical data:

- Filtered Usage – Only sales that are expected to reoccur should be considered as historical input for the forecast.
  - One-time sales can be flagged by the customer service person and excluded from usage.
  - Unusual usage is flagged by the system to provide the user a means of adjusting abnormalities.
- Smoothed Usage – Irregular usage can be automatically smoothed to improve usage patterns.
- Redirected Usage – Usage history from discontinued items can be reassigned to new items..
- Cloning – A percentage of Historical Usage can be cloned from an existing item to a new item. This allows you to forecast new items without waiting for historical usage to accumulate.
- Collaborative Input – Input from large customers who will share their expected buying patterns can be included.

AFP Vendor Collaboration

AFP Vendor Collaboration creates a Collaborative Forecast for you to provide to your Suppliers, which shows your anticipated demand of the products that they will supply to your company over the coming months.

Collaborative Forecast

Many times it is important to collaborate with your large customers relative to their expected purchases.

The collaborative forecast provides the user with a tool to import customer-provided forecasts and make them part of your overall forecast. In addition, AFP can use the forecasting engine to create a forecast specifically for a customer and export it to Excel. This provides the customer with input and also allows him to change the projections and return it to you for re-import in the system.

The collaborative forecast can be a valuable tool to improve the total forecast accuracy, but it is only valuable if it is more accurate than the statistical forecast. For this reason, the collaborative forecast is compared to actual to determine its accuracy.

The Total Forecast

The total forecast is made up of the following:

- Statistical formula-based forecast
- Adjustments to the statistical forecast, including promotions
- Collaborative forecast

Forecast Summary

The forecast can be rolled up based on the categories you select, and can be represented in quantity, cost, or price. Adjustments made to any of the forecast summary levels can then be applied as individual adjustments to each item in that level.

Adjustments

Adjustments made to any portion of the forecast are always noted by user and are available for reference.

Promotions

Promotions are initially used to increase the future forecast to ensure that adequate inventory will be available for the anticipated sales.

These promotions usually increase sales, but sometimes their historical usage serves as a source of future forecast errors. AFP separates the usage created by promotions and provides the user with suggested adjustments to remove the effects of the promotion from historical usage.

Replenishment

Even a forecast that is 100% accurate does not solve the entire inventory management problem. Stocking levels, long and short lead times, unanticipated demand, surplus inventory, excess inventory, dead stock, late and early purchase orders, kits, and branch replenishment are only a few of the issues that must be handled each day. AFP places as much emphasis on replenishment as it does on the forecast. Creating an accurate forecast and coupling it with sound replenishment principles increases the effectiveness of both tools.

AFP Distribution Requirements Planning (DRP)

In a multi-warehouse environment, it is very important to deploy your inventory in the right warehouse with the right quantities, based on their respective forecast and time-phased expected inventory.

This DRP functionality, available in AFP, handles both hub and spoke replenishment through the replenishment path, as well as the balancing of inventory across the supply chain for items that are vendor purchased in each location. For example, it is common to have a surplus in one warehouse and a need in another for the same item. AFP creates suggested transfers both for replenishment as well as inventory balancing.

The result is a lower overall inventory at the company level and a higher customer service level.

Suggested Order

The suggested order is automatically created for each vendor during the overnight process. Buyers then review the suggested orders with access to all the calculations used to make the suggestion.

Using this information, the user can make changes to the suggested order, if necessary, before creating a purchase order. As the purchase order is created, the suggested order is also saved along with all information that was used to make the recommendation.
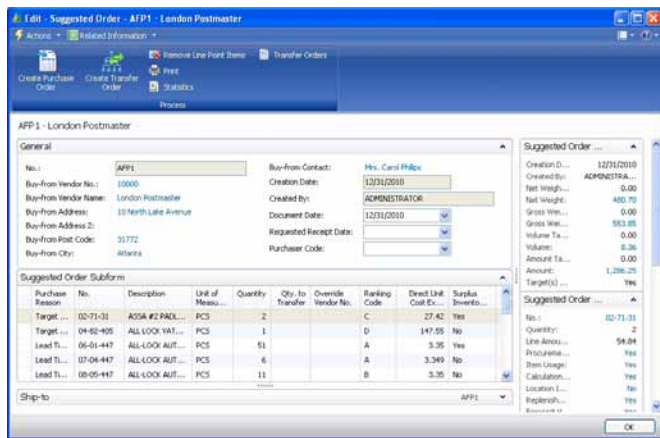
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AFP Procurement

AFP Procurement compares time-phased demand for components and raw materials to Dynamic Vendor Lead-Time to purchase products just in time for production. This procurement process also allows you to inventory a single product that is used as a component, as well as sold direct to customers.

Surplus and Excess Inventory

The system reviews inventory levels in other warehouses for all the items being suggested for order. If a surplus is found in another warehouse, the user is notified, and a transfer can be created instead of purchasing more inventory from the vendor.

Reducing Inventory

All of Advanced Forecasting & Procurement's strong methodologies work to provide the most accurate forecast and replenishment plans available today. The net result is a reduction in inventory, while maintaining or increasing customer service levels. Surplus inventory is reduced, and dead stock is identified and can be eliminated. Many companies currently using AFP enjoy the efficiencies this provides and the cash it frees up to fund further growth.

Alerts

Alerts support management by exception. You are notified of situations before they become a problem. For instance, possible stock-outs within lead time or late purchase orders will trigger alerts.

Containerization

Containerization enables the user to create multiple purchase orders from a single suggested order, one purchase order per container. An option exists to split a line between two or more containers to maximize loading. You can also put multiple suggested orders (vendors) into a single container. Once the container is initialized, you can change quantities or move an item from one container to another.

Complete Visibility

When reviewing the suggested order you have access to:
- Detailed Sales History by Period
- Total Forecast Detail
- Time-Phased Expected Inventory
    - On-hand inventory
    - Open sales orders
    - Purchase orders
    - Warehouse transfers
    - Kit components
- Surplus and Excess Inventory in all warehouses
- Replenishment path of the item
- Detailed calculation lines for each item

AFP Software Modules

Module Description	Module Number
AFP Basic *Required	14000370
AFP Collaborative Forecasting	14000510
AFP Advanced Forecasting *Required	14000520
AFP Production Forecasting	14000530

Software Requirements

AFP requires Microsoft Dynamics NAV BE (Business Essentials).

About the Developer

Lanham Associates® began its relationship with Navision Software in 1997 by creating the product's first distribution functionality, Advanced Distribution. A Gold-Certified Microsoft Dynamics ISV (Independent Software Vendor), Lanham Associates has been creating complementary supply chain planning and execution products inside Dynamics NAV ever since.

Current products include ACE – Advanced Commerce ERP – for Automotive, CPG, Electronics, and Sporting Goods; EDI; E-Ship; E-Receive; AFP – Advanced Forecasting and Procurement; ADCS Warehousing; Outbound Warehouse Request; and History & Security Management.

Lanham Associates maintains high standards for product excellence, and has been the recipient of both the President's Club and Inner Circle Awards many times since being affiliated with Microsoft.

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Microsoft Dynamics™ NAV

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